



DEFENSE HEALTH BOARD
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JUL 9 2008

DHB

MEMORANDUM FOR: The Honorable S. Ward Casscells, Assistant Secretary of Defense for Health Affairs

SUBJECT: Evidence-Based Accession, Deployment and Retention Military Medical Standards

1. References:

- a. Memorandum, DHB Evidence-Based Accession, Deployment, and Retention Standards Subcommittee, 1 June 2007, Question to the Board – Review, Analysis, and Interactions of Military Medical Standards than Span a Service Member's Career Lifecycle from Accession through Separation.
- b. Presentation: Review, Analysis, and Interactions of Military Medical Standards from Accession Through Separation to the Defense Health Board, 23 May 2007, by LTC Thomas W. Greig, Accessions Medical Policy and Clinical Informatics.
- c. Niebuhr DW, et al. The Enlisted Accession Medical Process. *Recruit Medicine* 2006: 45-58.
- d. Presentation: Accession Medical Standards Analysis and Research Activity (AMSARA): Information Briefing in Support of the Question Raised to the Defense Health Board Concerning Evidence-Based Medical Standards to the Defense Health Board, 23 May 2007, by LTC (P) David W. Niebuhr and COL Christine T. Scott, Walter Reed Army Institute of Research.
- e. Peck, Charles A. The US Army Physical Disability System. *Rehabilitation of the Injured Combatant* 1999:863-885.
- f. Report of the President's Commission on Care For America's Returning Wounded Warriors, Serve, Support, Simplify, July 2007.
- g. Gray B, et al. Literature Review: Selected Topics Related to Veterans' Disability Compensation. The CNA Corporation, May 2006.
- h. Cardona R, et al. Psychological Screening of Recruits Prior To Accession In The US Military. *Recruit Medicine* 2006:297-309.

2. At the request of the Acting Deputy Assistant Secretary of Defense for Clinical and Program Policy, the Defense Health Board (DHB) met on 23 May 2007 to address issues

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and concerns related to accession, deployment, and retention medical standards within the Department of Defense. The Board was asked to deliberate the following:

- a. Examine issues associated with the establishment and modification of the Department of Defense (DoD) medical standards that span the career lifecycle of service members from accession through separation.
 - b. Identify tools or methods DoD should use in the modification of current and establishment of new accession and retention standards that will ensure a medically ready force to meet our Nation's mission requirements, while minimizing the potential to cause or aggravate medical conditions that could preclude continued military service.
3. The Board received a series of presentations from DoD subject matter experts on 23 May 2007 and discussed methods of assessing the issue. The DHB President subsequently established a Subcommittee consisting of selected Board members to thoroughly review the literature on medical standards and report its findings and recommendations to the core Board.
 4. The Subcommittee conducted an extensive literature search and held two meetings (2 August 2007 and 18-20 September 2007), where issues associated with military medical standards were discussed. The Subcommittee's findings were deliberated by the Core Board in open session during the September 2007 meeting.

FINDINGS

5. Accession medical standards are uniform for all Services and components (active, reserve and National Guard). Retention and separation medical standards, however, differ across the Services and are developed without sufficient consideration of their impact on accession medical standards or service duration. As a result, it is important to examine: how waivers or amendments to accession medical standards impact the potential of service members to continue service over an extended time, whether these changes will eventually increase the prevalence of service members exiting the Service through the Medical Evaluation Board (MEB) or Physical Evaluation Board (PEB) process, and how a change in a medical retention standard potentially impacts accession medical standards.
 - a. In order to meet recruiting goals, policies reflect a shift to retain more service members on active duty; this may precipitate future trends in long-term rehabilitation care.
6. Evidence-based standards are here defined as the application of objectively-derived data in the development of criteria for optimal operations, i.e. the translation of research to standard operating procedures. A primary objective of evidence-based accession standards within DoD is to optimize the health and readiness of service members, while providing cost-savings by minimizing attrition and the associated high cost of replacement recruitment and basic combat training. Such standards are based on research and analysis of medical conditions affecting rates of first-term attrition, morbidity, waiver, and Existed

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Prior To Service (EPTS) separations; empirical data provides a mechanism to validate both current and proposed standards as well as assessment techniques.

7. Historically, Accession Medical Standards Analysis & Research Activity (AMSARA) has supported and provided policy guidance for the development of evidence-based accession standards based on research and analytical data. Efforts led to changes in accession standards, including the elimination of over 50 medical standards not supported by scientific evidence. As a result, the number of qualified applicants at the Military Entrance Processing Station (MEPS) increased and the number of unnecessary medical disqualifications decreased, leading to recruitment cost-savings exceeding \$20 million per year.
8. Current accession screening relies heavily on self-reporting, and fails to adequately detect undiagnosed or concealed medical conditions, since a strong applicant incentive exists not to disclose potentially disqualifying conditions. Past studies demonstrate an excess of 50% of discharges for EPTS were for conditions initially undisclosed at the time of accession examination.
9. The Individual Medical Readiness (IMR) program within DoD offers a means for military operational commanders, Departmental leaders, and primary care personnel to assess and monitor the medical readiness of Active and Selected Reserve members of the Armed Forces in order to facilitate deployability determinations. The IMR consists of defined and measurable criteria used for health and fitness deployment exams. Although useful, the criteria are not substantiated by evidence based outcome measurements such as specific medical conditions and diagnosis and subsequent well-conducted epidemiological research.
10. Retention standards are based on DoD Instruction guidance, Service Regulations, and subject matter expert (SME) opinion. However, current data on retention is insufficient, and tends to be individual-based. Deployment and retention data that contribute to an evidence base can help guide the development of standards, as well as facilitate assessments of both the probability and predictability of the deployment and retention of service members. Linkage of accession, deployment, and retention data over a service member's lifespan, and the subsequent determination of deployment and retention probabilities based on accession data have not been conducted to date.
11. The DoD and DVA disability evaluation and compensation systems were developed after World War II; although a significant number of ratings have been revised by the DVA over the last two decades, those not revised account for a disproportionate amount of claims. Methods for determining disability levels require further revision. Retention medical standards in the DoD are integrally linked to the veterans' disability system and disability costs, since standards data help inform disability evaluation and help validate compensation rates and disability diagnoses.

CONCLUSIONS

12. The Board commends AMSARA for its efforts to develop evidence-based medical accession standards, and concurs such efforts should be cited as a best practice.
13. The Board believes this effort would require a joint DVA-DoD process, but be incorporated at the DoD level. DVA standards and subsequent disability determinations should reflect and interface with DoD retention standards. Such standards should help inform fitness for duty. The findings of the Independent Review Group report recommended a re-engineering of the disability and compensation evaluation systems to create a single Physical Evaluation Board within the DoD, as well as shared guideline for DoD and DVA disability ratings.
14. Evidence-based standards must have positive predictive value, as well as relatively high degrees of sensitivity, specificity, and reliability. In addition, screening tests should be rapid, inexpensive, pose no significant health risks to persons tested, and be strong predictors of occupational dysfunction in the military. Such standards were not applied in accession screening tests administered between 1905 and 1909, for example, when the Armed Forces rejected 83% of all Service applicants based on personality, intelligence, medical, and physical requirements. In addition, applicant screening during World War I deemed 46.8% of the candidates medically substandard. Furthermore, significant loss of potential service members during World War II resulted from excessive accession standards, including mental health criteria used to establish service suitability lacking predictive value for performance.

RECOMMENDATIONS

15. **The Board supports the adoption of evidence-based accession, deployment, and retention standards that span a service member's career lifecycle from accession through separation, given the historical positive predictive value of evidence-based approaches. Evidence-based medical standards should be derived from the research, analysis, and subsequent linkage of databases regarding outcomes associated with underlying medical conditions, to performance during deployment, rates of deployment and return to duty.**
16. **The Board recommends the Department employ methods to identify individuals at high risk for early separation or failure to maintain deployment-readiness, as well as those possessing an increased likelihood to return early from area of responsibility (AOR). Such tools include case-control studies, short-term cohort investigations and life cycle tables. In addition, novel data mining approaches including market basket analyses may be of benefit.**
17. **The same analytical methods can also be used to identify successes, i.e., those most likely to be retained and complete deployment regardless of health status. Recent**

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Departmental policies employing neurocognitive assessment instruments may also be of value in the development of evidence-based medical standards.

18. The Board advises the following guiding principles be taken into consideration:

- a. The DoD should build upon existing infrastructure and programs utilizing evidence-based standards efforts, and incorporate approaches to measure deployment and retention standards.**
- b. To the extent permitted by the unique mission requirements of each of the individual military Services, the Board supports the development of uniform, evidence-based accession, deployment, and retention military medical standards for implementation throughout the DoD.**
- c. DVA standards and subsequent disability determinations should be informed by and interface with DoD retention standards.**
- d. To preserve the focus of DoD's primary war-fighting mission, including the necessary medical components thereof, and to sustain the mission of the DVA, rehabilitation, continuing care and compensation should be in the purview of the DVA.**

19. The above recommendations were unanimously approved.

FOR THE DEFENSE HEALTH BOARD:



**Gregory A. Poland, MD
DHB President**



**Michael D. Parkinson, MD, MPH
Chair, Subcommittee on Evidence-Based
Accession, Deployment, and Retention
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cc:

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